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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/678,549	10/04/2000	Rois O. Cordova	INTL-0473-US(P10020)	5766
21906	7590	10/14/2005	EXAMINER	
TROP PRUNER & HU, PC 8554 KATY FREEWAY SUITE 100 HOUSTON, TX 77024			KOROBOV, VITALI A	
			ART UNIT	PAPER NUMBER
			2155	

DATE MAILED: 10/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/678,549

Applicant(s)

CORDOVA, ROIS O.

Examiner

Vitali Korobov

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

PD

Response to Amendment

1. This Office Action is in response to remarks filed on 06/27/2005. Claims 1-26 are pending. None of the claims was amended in response to the Office Action on 4/21/2005.

Claim Objections

2. Claim 6 is objected to because of the following informalities: line 2 of the claim, word "forwards" is assumed by the Examiner to mean "to forward". Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 5-6, 9-11, 15-16, and 19-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over the U. S. Patent No. 6,052,721 to Shepherd (hereinafter Shepherd) in view of the U. S. Patent No. 5,850,396 to Gilbert (hereinafter Gilbert) and further in view of the U. S. Patent No. 6,256,668 to Slivka et al. (hereinafter Slivka).

In considering claims 1, 11, 21, and 25, Shepherd discloses a system and method for distributing software to a plurality of automated teller machines, the system

comprises: forwarding a software package and a list of addressees to a first processor-based system; (col. 3, lines 35-41); and forward said software package together with at least part of said list of addresses to a second processor-based system, said second processor-based system being on said list of addressees (col. 3, lines 43-58, where the limitation of forwarding of a software package is met by issuing an XFR command, and the limitation of sending a list of addressees is met by supplying a "Destination" parameter as part of the XFR command).

While Shepherd discloses the invention substantially as claimed, Shepherd does not explicitly disclose a stand-alone list of addressees to a first processor-based system.

Including a list of addressees or nodes in a forwarded data package, indicative the package's recipients, is well known in the art as evidenced by Gilbert, an analogous art, related to a message distribution to multiple destinations. Gilbert discloses a system for multicast message distribution, wherein the network has an originating node that sends a message for ultimate receipt by a subset of nodes in a polynomial expansion manner. The originating node sends a message to a limited number of nodes; each node also receives a unique list of other nodes that should ultimately receive the message. Each of these other nodes then sends the message to one or more nodes on its list, along with a unique subset of nodes that still have not received the message (see Gilbert col. 5, lines 19-23).

Given the teachings of Gilbert, it would have been obvious to a person having ordinary skill in the art to modify the software distributing system disclosed by Shepherd

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to include the unique node list as taught by Gilbert in order to achieve the advantage of tying up the originating node for a reduced amount of time while it transmits the message, as compared to the prior art (Gilbert, col. 2, lines 22-25). Therefore, the aforementioned limitations would have been an obvious modification to the system disclosed by Shepard.

Additionally, Shepard fails to explicitly disclose that the software package includes instructions enabling said first processor-based system to automatically install said software package and forward said software package automatically.

Nonetheless, a software package including an executable file containing installation instructions or setup instructions i.e. install.exe, autorun.exe or setup.exe that executes and installs the software without user input is well known in the art as evidenced by Slivka. In similar art Slivka discloses that an extractor in the self-extracting executable file extracts and decompresses all file including the installation file i.e. setup.exe, and automatically starts the installation program (see Slivka col. 18, lines 62-67).

A person having ordinary skill in the art would have readily recognized the advantages of including an executable file containing setup or installation instructions that will automatically install, both for the developers of the computer software (savings on support, distribution, and advertising costs) and for the user, who calls the update service or network service, and automatically obtains up-to-date versions of available computer software, and may never encounter defects which would have been

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encountered using an earlier, defective version of the computer software (Slivka, col. 3, lines 33-51).

In considering claims 5 and 15, while Shepherd further discloses forwarding a transfer complete message to the management station to advise the management station that the software package has been transmitted to the specified terminal (col. 3, lines 59-67), Shepherd does not disclose sending the software package together with a checksum to enable the second processor based system to confirm with the first processor-based system that the software package was received correctly.

Nonetheless, the method of receipt confirmation is merely a design choice and would not change the overall functionality of the system. It would have been obvious to a person having ordinary skill in the art to include sending the software package along with a checksum to confirm that the software package was received correctly as an alternate delivery confirmation method. Therefore, the claimed limitation would have been an obvious modification the system disclosed by Shepherd.

In considering claims 6 and 16, Shepherd further discloses including causing said first processor-based system to forward said software package to said second and a third processor-based system (col. 4, lines 43-51).

In considering claims 9 and 19, Shepherd further discloses transferring said software package together with software that enables said second processor-based system to transfer said software package to a third processor-based system (col. 4, lines 20-27).

In considering claims 10 and 20, Shepherd further discloses enabling said first processor based system to forward said software package to said second processor-based/ system during a low activity time on said first processor-based system (col. 4, line 28-42).

In considering claims 22, Shepherd further discloses a system wherein the device is a server. (While Shepherd does not refer to the device 12 of fig. 1, as a server, it performs all of the functions of a server and is therefore functionally equivalent to a server).

In considering claims 23, Shepherd further discloses wherein said server is a network management server (see fig. 1, means (12)).

In considering claims 24, Shepherd further discloses wherein said device is a client (see fig. 1, means (16-1-n)).

In considering claim 26, although the combined system of Shepard, Gilbert, and Slivka discloses the system substantially as claimed it does not disclose enabling the first processor-based system to automatically delete its address from the list of addresses before forwarding said list to said second processor-based system. Nonetheless, the aforementioned limitation would have been an obvious modification to the combined system. It would have been obvious to a person having ordinary skill in the art to include the step of to automatically delete its address from the list of addresses before forwarding said list to said second processor-based system in order to avoid receiving the software package multiple time thus reducing unnecessary system

processing time. Therefore, the claimed limitation would have been an obvious modification to the combined system of Shepard, Gilbert, and Slivka.

4. Claims 2-4, 7-8, 12-14, and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shepard in view of Gilbert in further view of Mapson (WO 98/33296).

In considering claims 7-8, and 17-18, while the combined system of Shepherd and Gilbert discloses the system substantially as claimed, the system does not disclose the step of encrypting the software package for transmission between said first and second processor-based systems and changing the encryption in a known fashion with each successive transfer from one to the next processor-based system.

Nonetheless, encrypting software packages and changing the encryption with each transfer of the software was well known to one skilled in the relevant art at the time the invention was made as evidenced by the teachings of Mapson.

In similar art, Mapson discloses a distribution system with authentication that provides a method of distributing one or more copies of goods and/or services wherein the Integrity Check Value (ICV) is recalculated in a manner determinable from both the first location and the product. The product, including the recalculated ICV, is then distributed to a second location remote from the first location where the IVC of the distributed product is compared to the IVC known to the first location (see Mapson, page 1, lines 30-32; through page 2, lines 1-9). Therefore, one of ordinary skill in the art would have found it obvious to incorporate and implement the recalculated 1CV in

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Shepherd's system in order to ensure the integrity of software distributed over an at least partially insecure network.

In considering claims 2 and 12, Mapson further discloses enabling said first processor-based system to install said software package on said first processor-based system, make a copy of said software package, and transmit said software package to said second processor-based system (see Mapson, page 2, lines 7-8).

In considering claims 3 and 13, Mapson further discloses causing said first processor-based system to automatically authenticate said software package (see Mapson, page 4, lines 31-32 through page 5, lines 1-2 and 15-16).

In considering claims 4 and 14, Mapson further discloses causing said second processor-based system to automatically authenticate said software package by sending a message to said first processor-based system (see Mapson, page 8, lines 23-29).

5. **Examiner's note:** Examiner has cited particular columns and line numbers in the references as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

Response to Arguments

6. Applicant's arguments filed on 06/27/2005 have been fully considered but they are not persuasive.

The Applicant argues – ***“The first processor-based system is enabled to automatically install the package and automatically forward the package, together with at least part of said list of addressees, to a second processor-based system.”*** (§1, 2nd sentence).

The Examiner respectfully submits, that Slivka teaches automatic installation of software (see the Abstract), and Shepherd teaches automatic forwarding (decision block 88 of Fig. 4A). Even if the teaching of automatic forwarding and automatic installation were not clearly provided in the cited references, the reference may not be deemed deficient based on the fact that it performs a certain operation manually instead of automatically, since it has been held that broadly providing a mechanical or automatic means to replace manual activity which has accomplished the same result involves only routine skill in the art. *In re Venner*, 120 USPQ 192.

The Applicant argues – ***“Even if one were to accept the combinabilities of the diverse, plural cited references, they do not teach forwarding the installation package, as well as the list.”*** (§3, 1st sentence).

The Examiner respectfully disagrees. Even if one were to overlook the fact that simultaneous forwarding of the software package and the list of addressees has been amended out of the latest version of the claims, Shepherd, in col. 3, lines 42-51 states the following: “If at block 88 it is found that there are terminals listed in the database 32 as having received the software package, then the flowchart proceeds to block 98, and a TRANSFER command is sent to one or more of the terminals 16. The TRANSFER command has the format XFR (Filename, Destination), where “Filename” identifies the

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software package and "Destination" identifies a terminal which is to receive the software package from a terminal which has received the TRANSFER command." clearly indicating that both the file and the list of destinations are being forwarded. In addition, Gilbert in col. 5, lines 18-22 teaches: "Under the present invention, each receiving node knows the other receiving nodes to which it must send the message because along with the message itself the node may also receive a list of nodes that have still not received the message. If a particular receiving node does not receive such a list of nodes, then it does not pass along the message to any other nodes." Since the message may contain software instructions, simultaneous forwarding of software and addressees to receive is clearly taught by Gilbert.

The Applicant further argues, regarding Slivka – ***"It does not forward the installation package."*** (§3, last sentence).

The Examiner respectfully disagrees and refers the Applicant to the above rejection, where Slivka was clearly cited for his teaching of a secure, self-extracting executable distribution file, not for his teaching of forwarding of the installation package to other computers.

The Applicant still further argues – ***"The reason that none of the cited references teach the claimed invention is that none of them contemplated the self-perpetuating system only conceived of by the present inventor."*** (§4, 1st sentence)."

The Examiner disagrees and respectfully submits that the concept allegedly conceived by the Applicant, has been well known in the art for well over 50 years, since

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the first theories on self-replicating programs (or self-perpetuating programs, as the applicant refers to them) were developed in 1949. Then, in 1978, John Shoch and Jon Hupp at the Xerox Palo Alto Research Center first reduced to practice what they called a "computer worm". The Examiner submits that the invention of the Applicant teaches essentially the same capabilities and operates essentially in the same fashion as a computer worm.

Some of the well known capabilities of computer worms are as follows:

- a. Once created, a worm can copy itself automatically;
- b. A worm can send itself automatically to another host;
- c. Upon arrival, a worm automatically installs itself, automatically replicates itself

and automatically sends itself to additional hosts on a list of addresses found on the host, or on the list of addresses a worm can carry with it as a payload.

In other words, a computer worm is a self-replicating, or self-perpetuating computer program or software, similar to a computer virus, with one important distinction: unlike a virus, a worm is self-contained, and does not need to be a part of another program to execute, replicate or propagate itself. The worms are commonly written to exploit the file transmission capabilities found in many of today's computers.

Numerous relevant computer science publications disclose that in addition to replication, a worm may be designed to do any number of things, such as delete or modify files on a host computer system, or send files via e-mail, or via unicast, multicast or broadcast capabilities available on the host computer. In addition, the worms are well known in the art to be so called "multi-headed", or carry other executables as a payload,

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such as instructions to self-install, self-replicate or transmit itself to other computers, automatically, and without user concept or intervention, which would defeat the purpose of many of the worms that have malicious intent (such as the "Morris worm", released into the Internet on Nov. 2, 1988, "Mydoom", "Sobig" and "Doomjuice", to name just a few).

Anticipating a possible rebuttal by the Applicant to the effect that the proposed invention has no malicious intent of the known computer worms, and therefore has a different utility, the Examiner would like to point out, that there have been numerous attempts in the past to apply the concept of computer worms for useful purposes, such as an automated cascading software distribution. For example, Wikipedia offers this information regarding a considerable debate among computer scientists on whether worms can be useful. "The Nachi family of worms, for example, tried to download and then install patches from Microsoft's website to fix various vulnerabilities in the host system (the same vulnerabilities that they exploited). This eventually made the systems affected more secure, but generated considerable network traffic - often more than the worms they were protecting against - rebooted the machine in the course of patching it, and, maybe most importantly, did its work without the explicit consent of the computer's owner or user. As such, most security experts deprecate worms, whatever their payload." This citation is provided as a matter of general interest, related to the instant application, and should not be misconstrued as an attempt to pass any judgment regarding the relative merits of the proposed invention.

The Applicant's arguments regarding the rejection of claims 1-26 under 35 USC § 112 have been considered and found to be persuasive. Therefore, the rejection of claims 1-26 under 35 USC § 112 is hereby withdrawn.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vitali Korobov whose telephone number is 571-272-7506. The examiner can normally be reached on Mon-Friday 8a.m. - 4:30p.m..

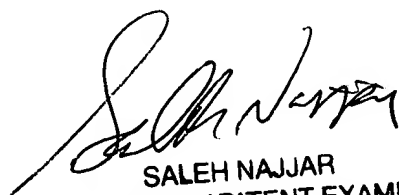
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on (571)272-4006. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Vitali Korobov
Examiner
Art Unit 2155

VAK
10/05/2005



SALEH NAJJAR
SUPERVISORY PATENT EXAMINER